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The Likelihood of Regional Triggers Under the Industry's Proposed "75% Rule"

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Concern about packing concentration has led to numerous requests for USDA to investigate the potential connection between packet concentration and depressed cattle prices. These calls for investigations and concerns about meatpacking concentration and impact on cattle prices are not new.[1] The most recent concern raised by cattle producers about packer concentration was due to depressed fed cattle prices post-Holcomb fire and COVID-19 pandemic resulted in a USDA report and pending DOJ investigation.

Some legislation has been enacted as a result of previous investigations; most notably the Packers and Stockyards Act in the early 1920s. The recently proposed legislation has largely focused on the potential connection between these market shocks and the level of negotiated trade that occurs. One overarching concern is that to achieve price discovery that is informative in the marketplace, a regional sufficient level of negotiated trade must occur. To help achieve these goals, three bills have been proposed: Senator Grassley's "50-14" rule, Senator Fisher's "Cattle Transparency" bill, and Congressman Johnson's "PRICE" act. These primarily aim to increase the level of negotiated trade, and, in some cases, create a cattle contracts library similar to the one available in the hog industry.

The industry has long been opposed to government regulation that could distort market signals. It responded to proposed legislation by advocating for the "Bid-the-Grid" program and more recently the "75% rule". The "75% rule" is a voluntary framework that includes cattle feeder and packing plant triggers based on levels of negotiated trade and marketplace participation. The overarching objective is to increase the frequency and price transparency in all major cattle feeding regions.

The framework functions off a series of triggers – four cattle feeding and four packer participation. The packer participation portion of the plan is still under development. The four cattle feeding areas are 1) Nebraska-Colorado, 2) Texas-Oklahoma-New Mexico, 3) Kansas, and 4) Iowa-Minnesota. A minor cattle feeding trigger occurs if less than 75% of the robust level of negotiated trade occurs in less than 75% of the weeks in a given quarter. Three minor triggers

[1] The first time the term the "Big Four" was used was in 1860s. Since then at least eight major investigations have been called for by cattle producers alleging that packing concentration negatively impacted cattle prices. Likewise, concerns about the farm to retail spread or present as early as in 1905. It is important to note that prior to 1960, packer concentration occurred at cattle harvest where carcasses were shipped to meat wholesalers to be broken down carcasses. Post 1960 packer concentration has occurred as packers began breaking down carcasses and selling boxes of beef.

equal a major trigger. A major trigger occurring in (a) two of four rolling quarters, (b) any two consecutive quarters, or (c) any two quarters in a calendar year, would prompt the industry to seek legislative action. This policy is likewise conditional on updates from literature and industry, and qualifying Black Swan events or ad hoc events that disrupt the normal cattle flows.

The question is whether this policy meets the objective to increase the level of negotiated trade and cattle price transparency. In other words, if this policy were historically in place, how likely would have minor (major) triggers occurred? Using public data published weekly and available through USDA-AMS from 2013-2020, I analyze this policy by addressing eight underlying assumptions. I further demonstrate potential considerations that could impact the "efficiency" of this policy.

1) **Number of minor triggers required:** The current policy states that three minor triggers constitute a major trigger. Details and data on the required packer participation portion are not yet available. Focusing only on the cattle feeding regions and minor triggers defined by the current 75% rule, no three regions have ever triggered in the same quarter. Two or more cattle feeding triggers have only occurred in six quarters, and one region triggering has occurred in 10 quarters. All two or more triggers only occur in the Kansas and Texas-Oklahoma-New Mexico regions. There is at least one trigger in approximately 50% of quarters from 2013-2020. In other words, it is unlikely that a major trigger would occur due solely to cattle feeding negotiated cash levels.

2) **Nebraska-Colorado combination:** Colorado and Nebraska are combined in the policy to form one region. The justification for this combination is not stated. Currently, USDA reports these as two separate regions and recent USDA-AMS discussions have recommended combining Colorado with Wyoming, not Nebraska. Two reasons for this combination are possible: 1) Western Nebraska and Colorado have similar climates and 2) issues with the lack of reporting in Colorado. Historically, Colorado has failed to meet USDA confidentiality requirements leading to nonreporting weeks. Combining Nebraska and Colorado reduces the number of minor triggers that would likely occur in a five region – three minor trigger scenario. Figure 1 plots the average percentage of weeks within a quarter failing to meet robust negotiated trade minimums under the four proposed regions plus Nebraska and Colorado. The horizontal dotted black line represents the proposed 75% minimum. Points above this line indicate the region failed to meet robust minimum requirements in that quarter and thus a minor trigger occurred. The NE-CO combination never triggers. Separating Colorado and Nebraska shows that Colorado frequently triggers while Nebraska never violates more than 30% of weeks. Clearly, combining Nebraska and Colorado reduces the potential number of minor triggers.

3) **75% of reporting weeks:** For a region to trigger, less than 75% of the robust negotiated trade must occur in more than 75% of the weeks in a quarter, or 10 out of 14 weeks. As the percent of weeks increases towards 100, the policy is less likely to trigger. On the other hand, as the percent of weeks required decreases towards 0, the policy is more likely to trigger. Table 1 illustrates this by fixing the percent of robust trade at 75% and varying the percent of weeks required to satisfy the 75% minimum and determine the percent of quarters activating a minor trigger by each of the four regions. Regardless of the required percent of weeks,

there are levels in which Texas-Oklahoma-New Mexico and Kansas regions will trigger. Iowa-Minnesota region would rarely, if ever, trigger, and the Nebraska-Colorado region only begins triggering around 50%.

4) **75% of robust negotiated trade:** For a region to trigger, less than 75% of the robust negotiated trade must occur in more than 75% of the weeks in a quarter, or 10 out of 14 weeks. How one defines these robust levels of negotiated trade is likely to be debated. Current robust levels are taken from the [Price Discovery Research Project]() (2017). As the percent of robust trade required each week goes towards 100, more regions will trigger. On the other hand, as the required percent of robust trade decreases towards 0, fewer regions will trigger. Table 2 illustrates this by fixing the percent of weeks at 75% and varying the percent of robust trade required in each week by region and determine the percent of quarters activating a minor trigger by each of the four regions. Under the most stringent policy (i.e. robust trade = 100%) Texas-Oklahoma-New Mexico will trigger in approximately 75%, Kansas 50%, Nebraska-Colorado 10%, and Iowa-Minnesota 0% of quarters. If the policy aims to increase the level of negotiated trade, increasing the required level of robust trade each week will meet this objective but to a slower and lesser extent than changing the required number of weeks (see point 3 above), all else held equal.

5) **Policy evaluation choice:** Whether a major trigger is likely to occur is largely dependent on the combination of the level of robust trade required in each week and the percent of weeks required to meet this minimum. The policy defines three minor triggers equal a major trigger. For the industry to seek legislative action, a major trigger must occur in (a) two of four rolling quarters, (b) any two consecutive quarters, or (c) any two quarters in a calendar year. Which of these three criteria to use in the official policy is currently being debated. As mentioned in point 1 above, it is historically unlikely that three cattle feedings regions would trigger at the same time. Thus, I show that the performance of these three criteria varies by the percent of required robust trade, percent of weeks required to meet this minimum, and varying levels of minor triggers required to equal a major trigger. Figure 2 plots the average number of violations within a quarter by these variations. The black dotted vertical line represents the current 75% rule robust negotiated trade minimum proposed in the policy. The panel combination "PCT.OF.WEEKS: 75 & MINOR.TRIGGERS: 3" is the performance of the current proposed "75% rule". Under the current policy, historically, a major trigger would not have been triggered due to only cattle feeding participation. The criteria of "2 of 4 rolling quarters" and "Any 2 quarters in a calendar year" have similar levels of regional triggers regardless of the percent of robust trade or percent of weeks, both of which, are higher than "Any 2 consecutive quarters". At higher levels of required robust trade, all policy criteria increase. At lower amounts of weeks required to meet minimum policy, triggers increase. Figure 2 can be used to explore a variety of potential scenarios involving changes to the percent of robust trade and percent of weeks violating minimums and how these choices subsequently affect policy triggers. On average, policy criteria largely perform the same.

6) **Nominal vs. percent of trade:** The current policy requires regions to meet the nominal level of trade rather than a percent of total transactions (negotiated cash + negotiated grid + formula + forward contract). In stable market circumstances, the difference between nominal values and percentage is negligible. If cattle slaughter increases over time, then negotiated

cash as a percentage of total transactions would decrease and the policy would be less binding. On the other hand, if cattle slaughter decreases over time, then negotiated cash as a percentage of total transactions would increase and the policy would be more binding. Current conversations about the appropriate level of negotiated sales have predominately centered on the percentage or share of transactions, not on the nominal level. For example, the percent of steers and heifers sold via negotiated cash has decreased from about 30% in 2016 to 20% in 2020. Likewise, commercial cattle slaughter has been increasing since 2014 and there is debate on whether carcass weights should continue to rise any further. Given these circumstances, and as the United States seeks to increase beef exports, cattle slaughter is likely to continue to rise, making this issue more important. A comparable parallel would be the hog industry, which has increased hog slaughter to meet increasing export demands, but the percent of hogs sold via negotiated trade has decreased – to approximately 5% of all transactions.

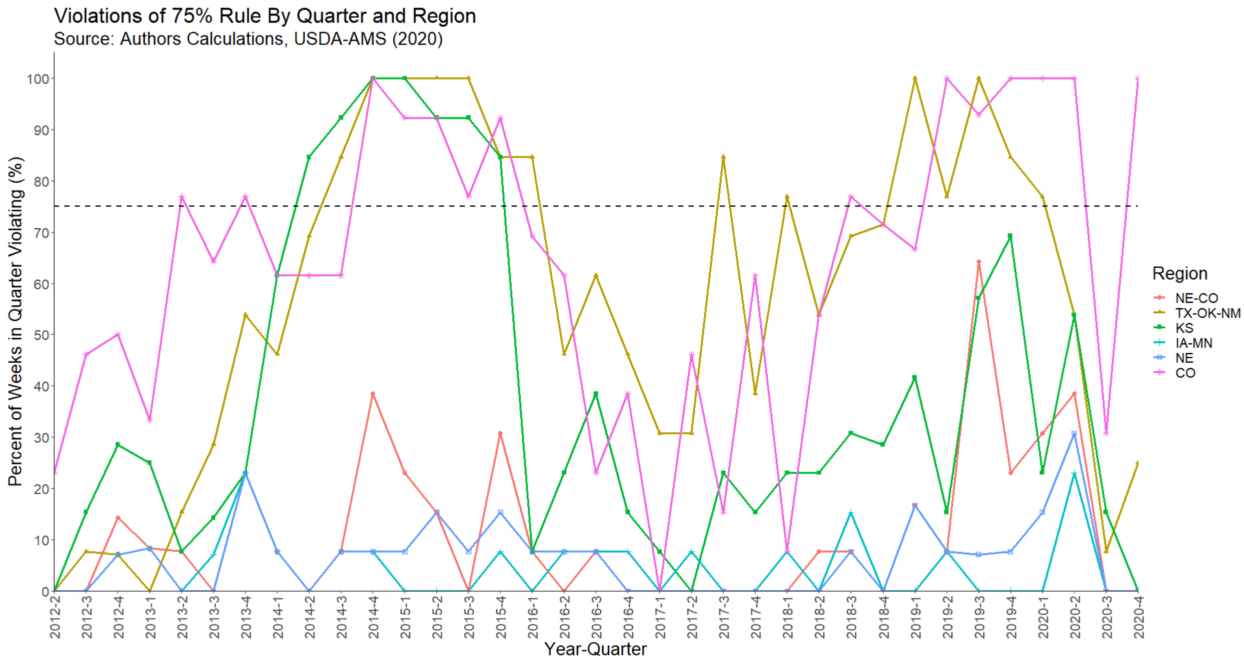
7) **Negotiated sales = negotiated cash + negotiated grid:** The policy states that negotiated sales consist of negotiated cash + negotiate grid. Historically negotiated grid is infrequently used, and if used it is more common in regions where there are high amounts of formula and forward contract sales. Defining negotiated sales as negotiated cash plus negotiated grid makes regions less likely to trigger since there are fewer cattle qualifying as negotiated sales. The debate would likely center around whether negotiating grid sales provides the same type of information as negotiated cash sales. Regions that already have a large number of negotiated cash transactions are likely to be less affected by this change in definition than other regions that have historically struggled to meet robust negotiated trade minimums.

8) **Adjustments due to Black Swan events and ad hoc regional cattle disruptions:** The policy currently has a qualifying statement that allows for adjustments to the required robust levels of negotiated trade and weeks satisfying the robust minimum given Black Swan events and ad hoc *regional* cattle disruptions. Both the Holcomb Fire and COVID-19 pandemic would fit under this category. If required robust trade was reduced and weeks increased during these events then regions would likely not trigger. However, given these potential ad hoc adjustments would this policy helped stabilize negotiated trade during the recent Holcomb Fire and COVID-19 pandemic? If not, then the current market situations which spurred these industry policy changes would not have been improved by the prior implementation of this policy.

The industry's "75% rule" was developed in response to proposed legislation to solve potential concerns about thinness in negotiated trade across different regions. The *current* concern surrounding thinness in negotiated trade has more to do with lower cash prices received by producers due to the Holcomb Fire and COVID-19 pandemic. Changes to the federal law or industry policy would not have effectively raised producer prices received for cattle. Further, if this policy would have been implemented before either the Holcomb Fire or COVID-19 it would not have changed packing plants' ability to process cattle (supply from feedlots) or lack of foodservice's demand for beef. Figure 1 shows that only the Texas-Oklahoma-New Mexico region tripped during those events.

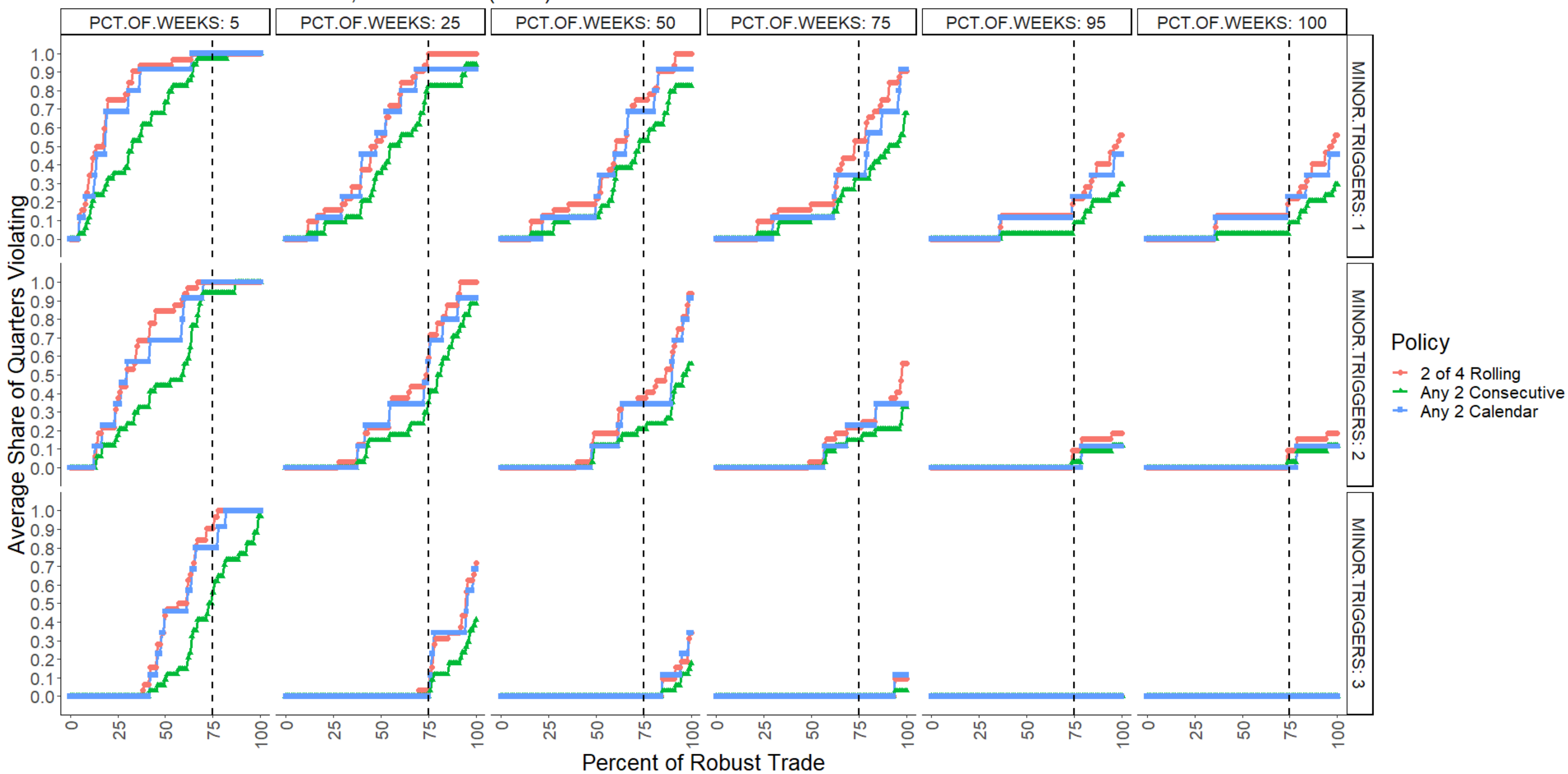
This policy, in its current form and from the four cattle feeding regions perspective, is not likely to significantly improve the level of negotiated trade nor cattle market transparency. Since it does not change the supply of fed cattle nor the demand for wholesale beef, it is also not likely to increase the cash price received by producers. Anytime a policy is implemented, whether industry prompted or legislatively enacted, there is a potential for creating increased costs and reducing profitability for the entire beef complex. For example, to advert potential legislation, packers and feedlots could change cattle marketing behavior from profit-maximizing to negative policy aversion creating inefficiencies in the beef complex. Consistent with the economic theory of derived demand, these additional costs, spurred on by potential policies, are likely to predominately be carried by the cow-calf industry.

Supporting Figures



Policy Violations By Share of Robust Trade and Percent of Weeks

Source: Authors Calculations, USDA-AMS (2020)



Supporting Tables

Table 1. Percent of quarters triggering by region given 75% of robust negotiated trade (cash + grid) and varying the percent of weeks below the threshold required to activate a minor trigger.

Percent of Robust Trade	Percent of Weeks	Percent of Quarters Violating Policy			
		NE-CO	TX-OK-NM	KS	IA-MN
75	5	57.14	94.29	91.43	45.71
75	25	14.29	82.86	48.57	-
75	50	2.86	60.00	31.43	-
75	75	-	40.00	20.00	-
75	95	-	17.14	5.71	-
75	100	-	17.14	5.71	-

Note: The grayed area is the current levels proposed under the "75% rule".

Table 2. Percent of quarters triggering by region given 75% of weeks below the threshold required to activate a minor trigger and varying the level of robust negotiated trade (cash + grid) required in each week.

Percent of Robust Trade	Percent of Weeks	Percent of Quarters Violating Policy			
		NE-CO	TX-OK-NM	KS	IA-MN
5	75	-	-	-	-
25	75	-	5.71	-	-
50	75	-	14.29	5.71	-
75	75	-	40.00	20.00	-
95	75	5.71	62.86	34.29	-
100	75	8.57	74.29	45.71	-

Note: The grayed area is the current levels proposed under the "75% rule".